

Course Home Page:

<http://k12s.phast.umass.edu/nutrition/NEO2000.html>

http://k12s.phast.umass.edu/nutrition/NEO_2000_Syllabus.html

Welcome to **Nutrition Education OnLine!** This course is sponsored by the University of Massachusetts/Amherst Department of Nutrition, the STEM Education Institute, and UMass K12. It is designed to provide information and resources about the science of food and nutrition as well as experience with technology through the use of the Internet.

COURSE OBJECTIVES:

Following this distance learning course, you should be able to:

- | | |
|---|--|
| <input checked="" type="checkbox"/> increase your knowledge and application of nutrition science. | <input checked="" type="checkbox"/> increase your computer skills and experiences with the Internet. |
| <input checked="" type="checkbox"/> increase your knowledge and use of behavior change and learning theories. | <input checked="" type="checkbox"/> integrate nutrition science, technology, and experimentation into the classroom. |

Each of the seven units covered will address three components: an understanding of the science of nutrition, applications using current behavior change and learning theories, and use of computer technologies. Unit assignments will include experiments to be completed in the classroom, opportunities to explore the World Wide Web, and ideas for using the computer as a professional resource. In each unit, participants will be guided to perform off-line activities in their homes or schools or on-line activities such as World Wide Web searches and posting information in newsgroups. Participants are encouraged to work in small group settings to complete specific tasks and report back to the larger group through the Internet.

PREREQUISITES:

Students must be elementary or secondary teachers. Seniors or graduate students who are completing a degree in education are also eligible. Participants must be experienced with designing and implementing lesson plans. Students must have access to the Internet with a computer, modem, email, and communications software.

REQUIRED TEXTBOOKS AND READINGS:

Nutrition Education Online Workbook

Nutrition Education Online Reading Packet

Science Experiments You Can Eat by Vicki Cobb

Nutrition Science and Applications 3e by Smolin and Grosvenor

Other readings, as assigned, from journals and online

REQUIRED DIETARY ANALYSIS SOFTWARE:

ESHAs "Food Processor"

REQUIRED ATTENDANCE:

Attendance at in-person initial and final workshops is expected. The location and dates of the workshops will be announced. Participants are expected to log-in to the *WebBoard* as often as possible, generally daily or every other day.

FACULTY:

Patricia (Patsy) Beffa-Negrini, Ph.D., R.D. Adjunct Associate Professor, Dept. of Nutrition, Univ. of Massachusetts, Amherst. (homework@k12s.phast.umass.edu); Office phone: (603) 756-3067; Fax: (603) 756-3467.

Nancy L. Cohen, Ph.D., R.D. Professor and Head Dept. of Nutrition, University of Massachusetts, Amherst. (cohen@nutrition.umass.edu); Office phone: (413) 545-0552; Fax: (413) 545-1074.

Mary Jane Laus, M.S. Research Associate, Dept. of Nutrition, University of Massachusetts, Amherst. (laus@nutrition.umass.edu); Office phone: (413) 545-4238; Fax: (413) 545-1074.

INTERNET SUPPORT STAFF:

Terry Dun, Director of Technical Services for UMass K12. (tdun@eagle.fcts.org).

Morton M. Sternheim, Professor, Dept. of Physics, UMass/Amherst. Director of the UMass K12 Project and STEM Education Institute. (mort@k12s.phast.umass.edu). Office phone: (413) 545-1908.

Helen R. Sternheim, Director of User Services for UMass K12, UMass/Amherst. (helen@k12s.phast.umass.edu). Office phone: (413) 545-1908; Fax: (413) 545-4884.

WEB FORMAT OF THE COURSE:

Participants will perform required activities as guided by the workbook, with due dates as described in the attached schedule. Interaction in the course will primarily be online. Participants will be divided into small teams for group projects and discussions. All participants are expected to read each others' work and respond online, as this is our main form of communication. The Nutrition Education Online Home Page is divided into several "areas" for ease of navigation. Participants will perform online self-assessment quizzes in the **Testing 1, 2, 3** area; post evaluations of experiments carried out at home or in the classroom in **Dr. Jekyll's Lab**, and post messages about controversial issues in **The Great Debates** area. Participants will answer research questions with the aid of links in the **Cyber Library**, assess their health in **Online Health Services**, and provide unsolicited comments in the **Virtual Café**. From the **Administration Page**, participants can contact the nutrition or technical staff, as well as other class members, by email. Participants also will post and read messages from class members and instructors in **Team Discussion Area**. Frequently asked questions are provided in the **FAQs** area, while the syllabus, course calendar, etc. can be found in **Course Materials**.

GRADING:

Grades will be based upon **timely** and satisfactory completion of required assignments, participation in team activities, a complete evaluation and reflection report, and attendance at the first and the final workshops.

Assignments will be rated "late" or with a "check minus," "check," or "check plus" as follows:

Late	Ö-	Ö	Ö+
Submitted more than 2 weeks after the due date.	Submitted by or after the due date, but not "Late."	Submitted by the due date.	Submitted by the due date.
No feedback will be provided from the instructor.	Response is incorrect or incomplete.	Response is correct but incomplete.	Response is correct and complete.
	Response lacks depth.	Response shows depth of thought.	Response demonstrates outstanding depth of thought.
	Minimal effort.	Good effort.	Exceptional effort.

Overall grade as follows:

Assignments: 40 %

Participation and attendance: 10 %

Experiments: 10 %

Team Lesson Plan:	20 %
Evaluation and Reflection Report:	20 %

Course Outline: Nutrition Education Online

Training: February 7

Week 1: Unit 1—Changing Dietary Behavior

Due Date

<input type="checkbox"/>	Step 1:	Full Value Contract	2/12
<input type="checkbox"/>	Step 2:	Read in Text	
<input type="checkbox"/>	Step 3:	Read in Reading Packet	
<input type="checkbox"/>	Step 4:	Record One Day's Food Intake	2/12

Week 2: Unit 2—Teaching and Learning About Nutrition

<input type="checkbox"/>	Step 1:	Barriers to Change	2/19
<input type="checkbox"/>	Step 2:	Read in Text	
<input type="checkbox"/>	Step 3:	Evaluating Web Resources or Critical Thinking	2/19

Week 3: Unit 3—Carbohydrates: Part 1

<input type="checkbox"/>	Step 1:	Read in Text	
<input type="checkbox"/>	Step 2:	Carbohydrates Quiz	
<input type="checkbox"/>	Step 3:	Increase Carbohydrate	2/26
<input type="checkbox"/>	Step 4:	Read in Reading Packet	

Week 4: Unit 3—Carbohydrates: Part 2

<input type="checkbox"/>	Step 5:	Read in Text	
<input type="checkbox"/>	Step 6:	Carbohydrate Search	3/4
<input type="checkbox"/>	Step 7:	Food Label Activity or Carbohydrate Experiment	3/4

Week 5: Unit 4—Lipids: Part 1

<input type="checkbox"/>	Step 1:	Read in Text	
<input type="checkbox"/>	Step 2:	Lipids Quiz	
<input type="checkbox"/>	Step 3:	Stages of Change	3/11

Optional Activity 1: MathMol

<input type="checkbox"/>	Step 4:	Read in Text	
<input type="checkbox"/>	Step 5:	Pat of Butter	3/11

Spring Break!

- Complete assignments by the due date. Assignments handed in after the due date are not eligible for a **B** or **B+**. Assignments handed in more than 2 weeks after the due date will not be graded.

Items in bold are activities to be submitted (posted or e-mailed) for a grade .

Week 6: Unit 4—Lipids: Part 2

Due Date

<input type="checkbox"/>	Step 6:	Read in Text	
<input type="checkbox"/>	Step 7:	Lipid Resources	3/25
<input type="checkbox"/>	Step 8:	Debate	3/23
<input type="checkbox"/>		Reply to Debate	3/28
<input type="checkbox"/>	Step 9:	Read in Text	

Optional Activity 2: Fast Food Finder

- | | | | |
|--------------------------|----------|-------------------------------|------|
| <input type="checkbox"/> | Step 10: | Dietary Fat Assessment | 3/25 |
| <input type="checkbox"/> | Step 11: | Read in Text | |

Optional Experiment: Lipids Experiment 3/31

Week 7: Unit 5— Protein

- | | | | |
|--------------------------|---------|-----------------------------------|------|
| <input type="checkbox"/> | Step 1: | Proteins Quiz | |
| <input type="checkbox"/> | Step 2: | Read in Text | |
| <input type="checkbox"/> | Step 3: | Protein Summary | 4/ 1 |
| <input type="checkbox"/> | | and Protein Summary Reply | 4/ 3 |
| <input type="checkbox"/> | Step 4: | Protein Assessment | 4/ 3 |
| <input type="checkbox"/> | Step 5: | Read in Reading Packet | |
| <input type="checkbox"/> | Step 6: | Protein Experiment | 4/ 8 |
| | | (Or, do an experiment in Week 9.) | |

Week 8: Unit 6— Energy Balance and Activity: Part 1

- | | | | |
|--------------------------|---------|---|------|
| <input type="checkbox"/> | Step 1: | Read in the Text | |
| <input type="checkbox"/> | Step 2: | Light Foods | 4/ 8 |
| <input type="checkbox"/> | Step 3: | Read in the Reading Packet | |
| <input type="checkbox"/> | Step 4: | School Health Programs | 4/ 8 |
| <input type="checkbox"/> | Step 5: | Reply to School Health Programs | 4/10 |
| <input type="checkbox"/> | Step 6: | Pick a Facilitator for the Team Lesson Plan | 4/ 8 |

Week 9: Unit 6—Energy Balance and Activity: Part 2

- | | | | |
|--------------------------|----------|--|------|
| <input type="checkbox"/> | Step 7: | Read in the Text | |
| <input type="checkbox"/> | Step 8: | Energy and Exercise Quiz | |
| <input type="checkbox"/> | Step 9: | Exercise | 4/15 |
| <input type="checkbox"/> | Step 10: | TEE | 4/15 |
| <input type="checkbox"/> | Step 11: | Bomb Calorimeter | 4/20 |
| | | (If an experiment wasn't done in Week 7) | |

Week 10: Unit 7—Vitamins and Minerals

- | | | | |
|--------------------------|---------|--|------|
| <input type="checkbox"/> | Step 1: | With your team, choose vitamin/mineral for the lesson plan | 4/17 |
| <input type="checkbox"/> | Step 2: | Vitamins and Minerals | 4/22 |
| <input type="checkbox"/> | Step 3: | Choose objectives for Team Lesson Plan | 4/22 |
| <input type="checkbox"/> | Step 4: | Begin Evaluation and Reflection Report | |

Weeks 11 and 12: —Team Lesson Plan and Evaluation and Reflection Report

- | | | | |
|--------------------------|----|----------------------|------|
| <input type="checkbox"/> | 1: | Concepts and Content | 4/26 |
| <input type="checkbox"/> | 2: | Activities | 5/ 2 |
| <input type="checkbox"/> | 3: | Resources | 5/ 2 |
| <input type="checkbox"/> | 4: | Evaluation | 5/ 5 |

Week 13: Editing the Team Lesson Plan

- | | | | |
|--------------------------|----|-----------------------|-----------|
| <input type="checkbox"/> | 1. | Edit Lesson Plan | 5/5 - 5/7 |
| <input type="checkbox"/> | 2. | Post Lesson Plan | 5/9 |
| <input type="checkbox"/> | 3. | Attend Final Workshop | 5/10 |

Week 14: Project

❑ Email Evaluation and Reflection Report to instructor.

5/17

Cyber Library

Use this library as the gateway to Internet resources by using the sites we suggest or searching for your own sites. If you find a good Internet resource, please post it in the [Virtual Cafe](#) for the others to see.

WEB Evaluation Tools

- [Evaluating Internet Resources](#)
- [Evaluating Web Sites for Educational Uses: Bibliography and Checklist](#)
- [Modular Web Teaching Pyramid](#)
- [Nutrition Navigator - A Rating guide to Nutrition Websites](#)
- [Psychosocial Parameters of Internet Addiction](#)
- [Dihydrogen Monoxide Research Division](#)

Links to the Major Internet Search Tools

- [All the Web, All the Time](#)
- [DEC's Alta Vista Web/Usenet search](#)
- [Infoseek Search Page](#)

Medical Search Engines

- [Achoo Search Page](#)
- [Health A to Z Search page](#)
- [Medline](#)

General Health and Nutrition Links

- [Climbing the Food Guide Pyramid](#)
- [Dietary Guidelines for Americans](#)
- [The Digestive System Page](#)
- [Food Guide Pyramid Information](#)
- [Food and Nutrition Information Center Internet Resources](#)
- [Food Guide Pyramid](#)
- [Healthfinder](#)
- [Hardin Meta Directory - Nutrition](#)
- [Interactive Digestive Tour](#)
- [Michigan Electronic Library](#) Health Information Resources
- [Lipoprotein Metabolism](#)
- [Nutrition Links, Kansas State University, Cooperative Extension Service](#)
- [PENpages](#)
- [Pyramid Tracker](#)
- [The Food Resource](#)
- [The "Virtual" Nutrition Center - Martindale's Health Science Guide](#)
- [Your Health IS your Business, Southern Illinois University](#)

General Nutrition and Health Information

- [American Dietetic Association](#)
- [Ask the Dietitian](#) This site includes the Healthy Body Calculator.
- [Center for Science in the Public Interest](#)

- [Centers for Disease Control and Prevention \(CDC\)](#)
- [Community Outreach Health Information System](#)
- [Cornell Cooperative Extension](#) (Ask the Nutrition Expert)
- [Food and Agriculture Organization \(FAO\)](#)
- [Food and Nutrition Information Center \(FNIC\)](#)
- [Food and Drug Administration \(FDA\)](#)
- [International Food Information Council \(IFIC\)](#)
- [Johns Hopkins Health Information](#)
- [Mayo Health Oasis of the Mayo Clinic](#)
- [National Agricultural Library](#)
- [National Center for Health Statistics](#)
- [National Institutes of Health \(NIH\)](#)
- [UMass Extension - Nutrition Education Program](#)
- [World Health Organization](#)
- [ALTERNATIVE Health News Online](#)
- [American Cancer Society](#)
- [American Institute for Cancer Research](#)
- [American College of Gastroenterology](#)
- [American Heart Association](#)
- [Home Page of DASH](#)
- [National Heart, Lung, and Blood Institute](#)
- [National Institute of Diabetes and Digestive and Kidney Diseases](#)

Nutrient Specific Sites

- [The Calcium Information Resource](#)
- [Milk - it's on everybody's lips!](#)
- [National Osteoporosis Foundation](#)
- [Osteoporosis and Related Bone Diseases](#)
- [CHROMIUM INFORMATION PAGE](#)
- [Salt Institute](#)
- [Upper Intake Levels](#)
- [Vitamin C for Optimum Health](#)

Vegetarian Dietary Sites

- [The Vegetarian Resource Group](#) Information concerning vegetarianism and vegetarian recipes. Access the [nutrition page](#) for specific topics.
- [Vegetarian Union of North America](#)
- [The Vegetarian Society of the UK](#)
- [Veggies Unite](#)
- [Fat Free Vegetarian Recipe Archives](#) From Michelle Dick

Children's Nutrition and Health

- [Climbing the Food Guide Pyramid](#)
- [KidsHealth.org](#)
- [USDA/ARS Children's National Research Center](#)
- [Cooperative Extension's Children, Youth & Families Education & Research Network](#)
- [Nutrition for children](#)

Energy Balance, Exercise, and Eating Disorder Sites

- [American Anorexia/Bulimia Association](#)
- [American College of Sports Medicine](#)
- [The Gluten-Free Page](#) Celiac Disease/Gluten Intolerance Web Sites.

- [Medicine & Science in Sports & Exercise](#)
- [National Coalition for Promoting Physical Activity](#)
- [National Eating Disorders Organization](#)
- [PHYS](#)
- [PKU News \(Phenylketonuria information\)](#) This is a good site for information regarding symptoms, treatment and current research regarding this disease.

Food Safety and Health Fraud

- [Center for Food Safety & Applied Nutrition](#) Click on [WHAT'S NEW](#) for new announcements and special interest areas.
- [FoodTalk](#) A monthly e-mail newsletter on food, nutrition and food safety. Also check their [Nutrition and Food Safety](#) site for additional information.
- [Fight BAC](#) This website includes a 30-second animated PSA.
- [Institute of Food Science and Technology](#)
- [Institute of Food Technology \(US\)](#)
- [National Council Against Health Fraud](#)
- [Quackwatch](#)
- [USDA Meat and Poultry Hotline](#)
- [National Food Safety/Risk Curriculum Database](#)
- [The Food Safety Education Resource Directory](#)
- [USDA Food Safety & Inspection Service](#)

Educational Resources

- [Dole 5 A Day Homepage](#) Information about the Dole 5 a day program. You can also find activities to promote fruit and vegetable consumption among children.
- [MathMol, Mathematics and Molecules](#) See lipid structures online.
- [Nutrition Education](#) Responsible Healthy Lifestyles, teacher resource book for K-6 grades.
- [Pyramid Power: The Food Guide Game](#)
- [Team Nutrition](#)

Recipes

- [Searchable Online Archive of Recipes](#)
- [Recipe Archives](#) From Stephanie da Silva
- [Recipe Archive Index](#) At Carnegie Mellon University
- [The Internet Chef](#)
- [The Village Bakery](#)

Click on [Health Services](#) for additional information on health assessment and dietary evaluation.

<http://k12s.phast.umass.edu/~nsol/nhohsl/nhohsl.html>

Online Health Services

Use this library to access specific sites for health and dietary assessment. If you find a good Internet resource, please post it in the [Virtual Cafe](#) for the others to see

Health Assessments

- [Body Fat Percentage](#) (Phys.com)
- [Body Mass Index](#) (Phys.com)
- [Continuum Health Partners' On-Line Health Assessment](#)
- [CyberDiet's Assessment Tools](#)
(waist/hip, target heart rate, body fat distribution, calorie burning, body mass index)
- [CyberDiet's Nutritional Profile](#) (ideal weight)
- [Health Risk Assessment](#) (Waist-to-hip ratio) (Phys.com)
- [Health Risk Assessment Introduction](#)
- [Ideal Weight](#) (Phys.com)
- [Milk - Better Bones Tour](#)
- [Snap: Health: Guide to Better Health: Tools and Gadgets](#)
- [5 A Day: What does it take to be Healthy?](#)

Dietary Analysis

- [Diet Analysis Web Page](#)
- [Fast Food Facts - Interactive Food Finder](#)
- [Food Guide Pyramid with Quizzes](#)
- [Food and Nutrition Solutions](#)
- [Free Dietary Screeners](#)
- [Nutrient Data Laboratory Food Composition Data](#)
- [Nutrition Analysis Tool version 2.0 \(NAT 2\)](#)
- [Online Diet and Recipe Analysis](#)
- [Personal Nutritionist](#)
(diet analysis using the Food Guide Pyramid, health weight, BMI)
- [Snap: Health Guide to Better Nutrition: Nutrition Essentials](#)

Click on [Cyber Library](#) to return to the main library page.